DOCUMENT RESUME

ED 474 553 IR 021 847

| | |
|---|---|
| AUTHOR | Virgen-Heim, Veronica; Erlanger, Wendy; Crowe, Judith |
| TITLE | California Reading Language Arts Technology Institute Action Research Project. |
| PUB DATE | 2002-06-00 |
| NOTE | 15p.; Paper presented at the Annual Meeting of the American Educational Research Association (New Orleans, LA, April 1-5, 2002). |
| PUB TYPE | Reports - Research (143) -- Speeches/Meeting Papers (150) -- Tests/Questionnaires (160) |
| EDRS PRICE | EDRS Price MF01/PC01 Plus Postage. |
| DESCRIPTORS | *Computer Attitudes; Computer Mediated Communication; *Educational Technology; Elementary Secondary Education; Inservice Teacher Education; Internet; *Language Arts; Postsecondary Education; Pretests Posttests; Questionnaires; *Reading Instruction; Teacher Attitudes; Teacher Surveys; *Technology Integration; *Technology Uses in Education |
| IDENTIFIERS | California Lutheran University |

ABSTRACT

This paper describes the Reading Language Arts Technology Institute at California Lutheran University (CLU), a two-unit continuing education course to develop teacher content area knowledge in ways that effectively utilize technology in K-12 reading instruction. Goals included: to enhance the teaching of reading and language arts; to better understand the value of technology in education; to build a network of experts in the teaching of reading utilizing technology; and to improve teacher attitudes toward integrating technology into the classroom. Project activities included: (1) instruction on CLU full-text databases; (2) concept mapping and brainstorming using the webbing software Inspiration; (3) evaluation of software; (4) using the Internet as a tool for learning; (5) use of the communication technology Tapped In, a multi-user virtual environment; (6) use of HyperStudio as a teaching tool; and (7) introduction to Netscape Composer Web page software. Participating teachers were pre- and post-surveyed regarding their attitudes toward language arts and technology integration. Findings included significant increases in positive teacher attitudes toward the use of technology and interest in implementing integrated technology lessons. A copy of the survey instrument is appended. (MES)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 474 553

# A Paper Presentation AERA
# New Orleans June 2002

Presented by,
Veronica Virgen-Heim
Wendy Erlanger
Judith Crowe

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

V. Virgen-Heim

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

IR021847

BEST COPY AVAILABLE

**California Reading Language Arts Technology Institute Action Research Project**

Background

In October 2000 the School of Education at California Lutheran University was awarded a grant to become a regional site for the California Reading and Literature Project (CRLP). The CRLP is one of nine California Subject Matter Projects and is governed through the University of California's Office of the President. "The CRLP mission marks student achievement as a central goal and teacher leadership and quality professional development as the primary vehicles to serve this goal. To help ensure that every California student achieves the highest standards of performance in reading and language arts, the California Reading and Literature Project supports professional development opportunities for teachers of reading and literature, including expository texts, in K-12 and university classrooms" California Lutheran University became the 14th site to be funded, and the only one located at an independent university. Further information about the project can be accessed at http://www.ucop.edu/csmp/crlp/regional.html. Co-Directors of the Project are Dr. Judith Crowe, Assistant Professor of Education, CLU and Sarah Morton, Teacher, Colina Middle School, CVUSD. A unique aspect of the CLU Reading and Literature Project was the intentional inclusion of a technology and reading summer institute to support our initiatives and the learning and teaching experiences of participants.

The primary purpose of the Reading Language Arts Technology Institute is to provide professional development opportunities for teachers throughout the state of California. As a California Reading and Literature Project regional site, California Lutheran University offered a a grant subsidized five-day leadership invitational institute on integrating technology into reading and language arts instruction. Classroom teachers and specialists in technology, representing each of the 11 CTAP regions, worked together and created valuable teaching tools which integrated current technologies with the delivery of reading and language arts content. Workshops such as

this fulfill specific proposals of the grant such as, "... the use of technology to support our initiatives and the learning and teaching experiences of participants."

California Lutheran University school of Education has on faculty two clinical faculty members that specialize in curriculum integration and technology education. Wendy Erlanger, and Veronica Virgen-Heim are full time faculty at California Lutheran University, in the School of Education, Teacher Preparation. Wendy and Veronica have been hired on a PT3 grant, as clinical faculty. Both have Masters Degrees, emphasizing Educational Technology. As reflective, veteran educators, we have a clear understanding of the dire need for teacher training. This need is evidenced by a recent survey by the National Center for Educational Statistics (NCES) which indicates that less than 20% of current teachers reported feeling very well prepared to integrate educational technology into classroom instruction. Many teachers are not yet skilled In the various technologies and feel uncomfortable using technology in their classrooms, especially when being measured against the National Educational Technology Standards (ISTE)(2000). The Reading Language Arts Technology Institute is committed to responding to this growing need for skilled teachers in reading language art, with technology training that will raise the level of knowledge about integrating technology into the curriculum.

Methodology

The California Reading and Literature Project; Reading Language Arts Technology Institute, took place in the summer of 2001. The workshop was offered as a 2-unit continuing education course titled Reading Language Arts Technology Institute. The project goal was to develop teacher content area knowledge in ways that effectively utilize technology in reading instruction K-12.

The intermediate goals were:

- To enhance the teaching of reading and language arts
- To better understand the value of technology in education

- To build a network of experts in the teaching of reading utilizing technology.
- To Improve teacher attitudes toward integrating technology into the classroom

Project Activities

A typical day at the institute started with an overview of the particular technology that would be studied that day, followed by a discussion of ways to best integrate this technology into the classroom. A recording of the expectations of all participants as well as of the instructor's was then completed. A quick read of the years Caldecott winners concluded the morning's activities. Many of the software activities taught in this institute incorporated the storylines of recent Caldecott winners; therefore we felt it important to keep participants current on these authors and their work. The actual training on the day's technology integration and software application took place next. The schedule described above helped to focus the participant's attention by providing a reasonable expectation of the curriculum the workshop would operate within. It also raised the comfort level of all participants by providing an environment that encouraged participant input into the workshop itself as well as how best to take this information back to the classroom and have productive results.

PowerPoint software was used to document and illustrate participant expectations. Common expectations included, sharing ideas on how to integrate technology into the classroom, building a support network, and being tolerant of the variety of skill levels in the group. Instructors were expected to answer all questions regarding the particular technology being studied, know and share what is important to administrators and teachers regarding the subject of the advancement of teacher education through continuous improvement training workshops such as these, be fully versed in the use of all application software, be able to show participants how to integrate technology into their curriculums, and finally to share ideas on making due with what little technology we may have at our disposal.

Once a particular software application had been discussed and experimented with, a discussion would begin as to the best way to integrate this particular application into the classroom. Ideas were then recorded and the group would take time at the close of everyday to reflect on concerns, delights and integration ideas. This information was then recorded, organized, printed, and displayed using PowerPoint software.

We examined CLU full text databases first. Full text databases are useful in retrieving current research regarding reading language arts. A full text database allows students immediate access to current research articles. We learned about the components of a database, brainstormed key words, and defined terms of a Boolean search. We utilized the I do, we do, you do method of instruction and asked participants to find, save, read and synthesize a current article in technology and reading language arts acquisition that was relevant to their teaching. This activity not only taught participants how to perform each of these operations but also helped the participants to see the relevance of technology integration while giving them an opportunity to share the latest research with colleagues. This lesson and the subsequent dialogue it produced also provided an opportunity to become better acquainted with each other's specializations and interests.

Our second activity was concept mapping and brainstorming using the webbing software Inspiration. Inspiration software was demonstrated and participants were led through the same model of instruction described earlier. Participants were guided through the many components of the software, and created a concept map of the mornings Caldecott winning story. Participants were offered the opportunity to complete this concept map or create an entirely different concept map relating to a story from their own curriculum. A collaborative learning environment was encouraged to more accurately model the effective integration of technology into current curriculum.

The next activity was the evaluation of software; we believe teachers need to be aware of the value of choosing appropriate software that will meet the needs of their students. Participants

were guided through the criteria for evaluating software and asked to apply this knowledge to the examination and evaluation of reading language arts software. Students were then lead through a PowerPoint demo and given step by step instruction for creating a template designed for evaluating software based on the NTEQ philosophy. Instructors brought in various Language and Reading software, including those titles taught during the workshop, for teachers to evaluate. Participants presented their evaluations to their peers, and were able to become familiar with the various attributes of these applications so that they could begin to introduce them into their own classroom curriculum.

Our fourth activity concerned using the Internet as a tool for learning. Participants received a lesson on search engines, learned how to locate Language Arts and Reading lesson plans, and discovered where to find the California state content standards and the National Education Technology Standards for students, and teachers, as well as SCORE units. We followed this with an exploration into the resources of Web Quest. In order to understand the components and pedagogy surrounding the Internet activity of a Web quests, participants followed a Web quests on Web quest that helped to further clarify the intended mechanisms. We then explored Web quest designed particularly for their integration into the Language Arts and Reading curriculum.

Tapped In was the next communication technology participants were exposed to. The technology underlying TAPPED IN is a multi-user virtual environment (MUVE) that enables you to: Converse with others in real-time, leave messages and documents for others to view later, view Websites alone or with others, and use just about any computer connected to the Internet. A MUVE is a client-server software application that allows many participants, regardless of their actual location, to log in simultaneously to a central database from a PC or Macintosh. Tapped In participants discussed pertinent research they retrieved from earlier California Lutheran University database activity, with field expert Dr. Crowe. They were encouraged to continue the

reading forum after the weeklong institute in the hope that they could function as leaders on the subject of reading language arts and establish a network to communicate through.

The next activity was the use of HyperStudio as a teaching tool. The participants were guided step by step in developing interactive multimedia reading courseware; they constructed individual or collaborative HyperStudio stacks related to literature that could be implemented into their classes. We explored the Wagner HyperStudio webpage for sample stacks and distributed related ideas for use in the participant's classrooms.

Participants were then introduced to Netscape Composer web page software. They designed web pages around a course of study involving a literature unit. It is hoped that these web pages will serve as a resource in their classrooms for student's teachers, and parents who desire to learn more about the subject of the web page as well as the construction of the web page itself. Web page construction tools included digital photography and imaging, scanners, and photoshop software. This led us to our last activity were participants learned and used a digital camera to record images, a scanner to save students work, and the use of digital images libraries. The Adobe Photoshop software was introduced to our participants; we spent time editing graphics and incorporating them into their final presentations.

**Results and Conclusions**

As the literature shows, we have just started to address the need for preparing teachers to integrate technology into classroom curriculum, "We believe we still have a long way to go in our desire to nurture practitioners who are knowledgeable about how they may utilize technology as a cognitive and communicative tool for themselves first, and then willing to explore ways in which to extend that knowledge to their students." Abadiano, Kurkjian, Abed (2001). Society has placed demands on teachers to integrate these new information technologies into their curricula based on the needs of an ever-growing job market in technological fields. Nisan-Nelson (2001). Due to projects such as the Reading Language Arts Technology Institute teachers attending these

types of workshops will enter classrooms with more confidence in their ability to use technology as an effective instructional tool and have a wealth of integration ideas to implement. As stated by Cathy Grant " If teachers are to use information technologies to transform their practice, their professional development activities must address what can initially appear to be competing demands of new tools and teaching approaches. These activities must help teachers coherently combine curricula, tools, and standards."

Quantitative data was collected from the participants before during and after the project. Participating teachers were pre and post surveyed regarding their attitudes towards language arts and technology integration. Under initial review of the quantitative data collected regarding the integration of Reading and Language Arts and technology, the following observations have been identified:

- a significant increase in positive teacher attitudes toward the use of technology
- a significant increase in interest in implementing integrated technology lessons

For purposes of this research, survey results were tabulated by running descriptive statistics on fourteen survey indicators of comfort levels and familiarity towards technology integration. A likert scale of zero through four was used on each indicator. Four represented strongly agree, three was agreeing, two was disagree, one was strongly disagree and zero was not certain.

Quantitative results from the pre and post surveys identified significant increase in teachers' comfort level in using technology and integrating it into current curriculum. Comfort level with integrating technology into the curriculum scored a median of 3.0 on the pre-survey and 3.0 on the post-survey. Results also indicate that participants are more familiar with criteria for evaluating software. Familiarity with software evaluation had a median of 2.00 on the pre-survey and 3.00 on the post-survey. Another significant increase was shown to be with using Tapped In as a communication tool, with a median of 2.0 on the pre-survey and 3.0 on the post-survey.

**Figure 1**

| | Pre-Survey | Post-Survey |
|---|---|---|
| **Indicator** | **Median** | **Median** |
| Comfort integrating technology into the curriculum | **3.00** | **3.00** |
| Familiarity with software evaluation criteria | **2.00** | **3.00** |
| Familiarity with communication tools like Tapped In | **2.00** | **3.00** |

Surveys conducted at the end of the institute indicated that the technology that will most readily be integrated is multimedia software. Many positive aspects of the program were commented on during the post-survey. Participating teachers reported delights such as; " I had fun using hyperstudio, creating action buttons, and was pleased to find that the features of the software programs and their ease of use will provide motivation for my students to present work via multi media software", "it was nice to have time to interact with colleagues", "I liked finding relative clips and movies for integration, and importing pictures from the web", "Using the Internet was invaluable", "the animation use on web page and multimedia was most valuable", "finding great teacher resources, saving images as JPEG and creating a picture folder to log images", "The most valuable information was the ease of use for searching CLU databases". Positive feedback such as this illustrates that participants and instructors understand and enjoy the many tools made available to them through training courses such as these and that a spirit of continuous improvement in the way we integrate technology into reading language arts has been engendered.

Many of the known challenges to teacher training were reflected in the institute. Some of the concerns participants shared were; mental overload starting so soon after school year, air temperature, stretching breaks, technical difficulties of computers and printers, copyright issues, filtering WebPages, and Acceptable Use Policy 's. One area of improvement that needs to be addressed according to feedback data is the fact that there was not a significant increase in comfort of integrating digital images into the curriculum. After some discussion, we came to the conclusion that we would restructure this to include only the integration of uses for digital cameras and scanning in the classroom, and the resources of image libraries on the web. We would leave out the cumbersome adobe Photoshop tutorial. This will also allow participants more time for collaboration, hands-on discovery and integration dialogue.

During the implementation of the Reading Language Arts Technology Institute, data was collected, we noted areas to improve and the revisions are in place. In summer 2002, we plan to provide integration of appropriate technology resources for the three-week summer open invitational institute. In addition, plans are underway to provide another program focusing entirely on the use of technology in reading and language arts. We will continue to offer workshops that provide participants a learning opportunity designed for the betterment of our teachers in Reading and Language arts instruction and their abilities to integrate technology. The results of this project show that the following 3 key areas of educational importance were addressed and improved upon: 1) The improvement of potential teacher use of technology in the classroom and the connection of teacher attitudes, 2) The building of a community within the educational setting that disseminates projects through state and regional conferences, 3) The identification of effective strategies for professional development and the construction of a network of educators using mailing lists and chat rooms to promote reading education.

**Bios**

Wendy Erlanger, Veronica Virgen-Heim and Judith Crowe are full time faculty at California Lutheran University, in the School of Education, Teacher Preparation. Wendy and Veronica have been hired on a PT3 grant, as clinical faculty. Both have Masters Degrees, emphasizing Educational Technology. Judith is an associate professor and Director of the California Reading and Literature Project. She holds a Doctorate in Educational Management. All the authors worked together in implementing the CRLP Reading and Language Arts Technology Institute.

Appendix I

**California Lutheran University**
**School of Education**
**CRLP Technology Institute**

**Summer 2001**

**Action Research In-service Teacher Survey**

**Last 4 digits of Social Security #: _ _ _ _**
**Pretest _____ Post-test _____**

*Part I* Directions: Below is a set of statements related to integrating technology into your Reading/ Language Arts curriculum. Indicate your degree of agreement with each statement by circling your category of response. Use the following marking scheme:

SA = Strongly Agree
A = Agree
D = Disagree
SD = Strongly Disagree
NC = Not Certain

| | | | | | |
|---|---|---|---|---|---|
| 1. I am comfortable integrating technology into the curriculum. | SA | A | D | SD | NC |
| 2. I am comfortable accessing full-text databases for research purposes. | SA | A | D | SD | NC |
| 3. I am comfortable integrating graphic organizers (Inspiration) into the curriculum. | SA | A | D | SD | NC |
| 4. I am comfortable using search engines to locate curricular resources. | SA | A | D | SD | NC |
| 5. I am familiar with quality lesson plan websites. | SA | A | D | SD | NC |
| 6. I am comfortable integrating web based inquiry-oriented activities (Webquests) into the curriculum. | SA | A | D | SD | NC |
| 7. I am comfortable integrating PowerPoint into the curriculum. | SA | A | D | SD | NC |
| 8. I am familiar with software evaluation criteria. | SA | A | D | SD | NC |
| 9. I am familiar with using Tapped In as a communication tool. | SA | A | D | SD | NC |
| 10.I am comfortable integrating Hyperstudio into the curriculum. | SA | A | D | SD | NC |

| | | | | | |
|---|---|---|---|---|---|
| 11. I am comfortable creating web pages to utilize in the curriculum. | SA | A | D | SD | NC |
| 12. I am comfortable using a digital camera. | SA | A | D | SD | NC |
| 13. I am comfortable using a scanner. | SA | A | D | SD | NC |
| 14. I am comfortable integrating digital images into the curriculum. | SA | A | D | SD | NC |

*Part 2* Directions: Please check the description that best describes your current situation.

Your teaching experience:

____ no teaching experience
____ less than 5 years teaching experience
____ over 5 years teaching experience
____ other related experience _____

**Thank you!**

References:

Abadiano, Helen R.; Kurkjian, Catherine.Abed, Farough. (2001). Preparing teachers in the new millennium: teaching the language arts within new technologies: The New England Reading Association Journal v. 37 no1 p. 18-23.

Nisan-Nelson, Paula D. (2001) Technology integration: a case of professional development. Journal of Technology and Teacher Education v 9 no1.

Grant, Cathy Miles. (Nov 1999). Beyond tool training: Learning and Leading with Technology v 27 no 3 p42-47 .

SRI International (2001). TAPPED IN Welcome Page, available at www.tappedin.org, Menlo Park, CA: SRI International

**U.S. Department of Education**
*Office of Educational Research and Improvement (OERI)*
*National Library of Education (NLE)*
*Educational Resources Information Center (ERIC)*

# REPRODUCTION RELEASE

(Specific Document)

## I. DOCUMENT IDENTIFICATION:

| | |
|---|---|
| Title: California Reading Language Arts Technology Institute Action Research Project | |
| Author(s): Veronica Virgen-Heim, Wendy Erlanger, Judith Crowe | |
| Corporate Source: AERA PRESENTATION | Publication Date: 6-1-02 |

## II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

Level 1 ☒

Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) *and* paper copy.

The sample sticker shown below will be affixed to all Level 2A documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2A

Level 2A ☐

Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only

The sample sticker shown below will be affixed to all Level 2B documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2B

Level 2B ☐

Check here for Level 2B release, permitting reproduction and dissemination in microfiche only

Documents will be processed as indicated provided reproduction quality permits.
If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.

*I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.*

**Sign here, → please**

| | |
|---|---|
| Signature: Veronica Virgen-Heim | Printed Name/Position/Title: Veronica Virgen-Heim |
| Organization/Address: California Lutheran | Telephone: 805 493 3020 FAX: 805 492 9965 |
| 60 W Olsen Rd #4100 Thousand Oaks CA 91360 | E-Mail Address: VVirgen@clunet.edu Date: 7-1-02 |

(over)

## III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, *or*, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

| |
|---|
| Publisher/Distributor: |
| Address: |
| Price: |

## IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

| |
|---|
| Name: |
| Address: |

## V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

**ERIC CLEARINGHOUSE ON ASSESSMENT AND EVALUATION**
**UNIVERSITY OF MARYLAND**
**1129 SHRIVER LAB**
**COLLEGE PARK, MD 20742-5701**
**ATTN: ACQUISITIONS**

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

**ERIC Processing and Reference Facility**
**4483-A Forbes Boulevard**
**Lanham, Maryland 20706**

**Telephone: 301-552-4200**
**Toll Free: 800-799-3742**
**FAX: 301-552-4700**
**e-mail: ericfac@inet.ed.gov**
**WWW: http://ericfac.piccard.csc.com**

EFF-088 (Rev. 2/2000)